Short neurotoxin 2, recombinant venom peptide

(*Naja annulifera*)

Catalogue number: VP0013, 0.1 mg
(0.5 mL at 0.2 mg/mL)

Description

Short neurotoxin 2 venom peptide is a recombinant peptide purified from *Escherichia coli* that was originally isolated from the venom of *Naja annulifera*. This venom peptide binds to muscle nicotinic acetylcholine receptor (nAChR) and inhibits the acetylcholine ligation to receptor, blocking the neuronal transmission. The recombinant peptide is provided in 50 mM NaHepes buffer, pH 7.5, 300 mM NaCl, at a 0.2 mg/mL concentration.

Purity

Short neurotoxin 2 venom peptide is produced recombinantly and subjected to a variety of highly stringent purification protocols to reach a degree of purity > 90%, as evaluated by SDS-PAGE and ESI-Q-ToF-MS.

Recombinant Peptide sequence

MICHNQQSSQPPTIKTCPGETNCYKKRWRDHRGTIIERGCGCPSVKKGV
GIYCCKTNKCNR

Specifications

Peptide Length	61 aa
Molecular weight	6915 Da
Number of Cys	8
Disulfide bonds	Cys^{3}-Cys^{23}, Cys^{17}-Cys^{40}, Cys^{42}-Cys^{53}, Cys^{54}-Cys^{59}
Source	Recombinant peptide from *Naja annulifera*
Format provided	Liquid
Uniprot Access	P01422
PDB Code	Not available

Storage Temperature

Short neurotoxin 2 venom peptide should be stored at 4°C and is stable for 12 months.

Reference

Biological and biochemical properties of this peptide are described in Joubert, F.J. and Hoppe-Seyler's, Z. Physiol. Chem. 356, 53-72 (1975).

Quality Control Assays

Purity

Recombinant Short neurotoxin 2 venom peptide is >90% pure as judged by SDS polyacrylamide gel electrophoresis followed by BlueSafe staining (MB15201).

Molecular weight determination

To confirm molecular weight, oxidation pattern, molecular integrity and degree of purification, the recombinant peptide was analysed through ElectroSpray Ionization Quadrupole Time-of-Flight Mass Spectrometry (ESI-Q-ToF-MS) using a Synapt G2 HDMS (Waters) instrument. The resulted mass spectra was deconvoluted using MassLynx software and the obtained mass was compared with the theoretical peptide mass considering that all cysteine residues are oxidized.

V2101

Certificate of Analysis

Test	Result
Peptide purity	Pass

Approved by:

Patrícia Ponte
Senior Manager, Quality Systems

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